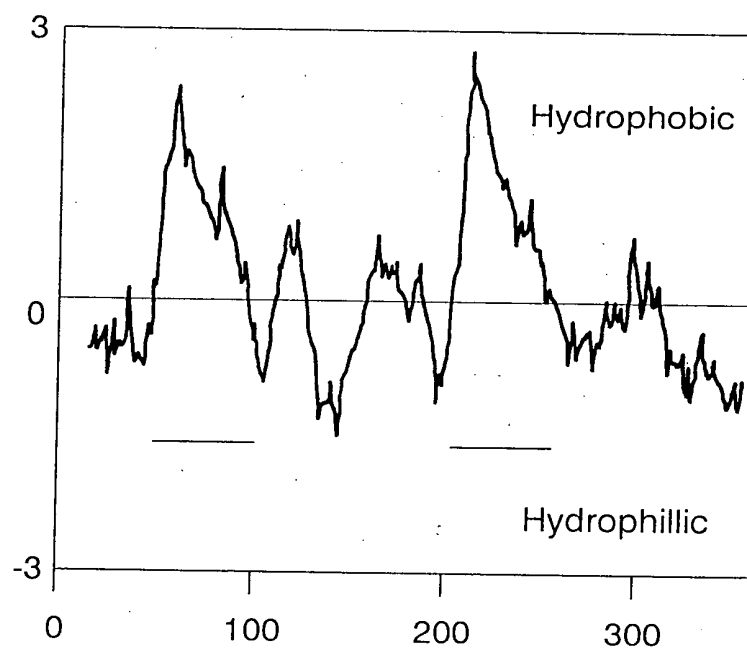
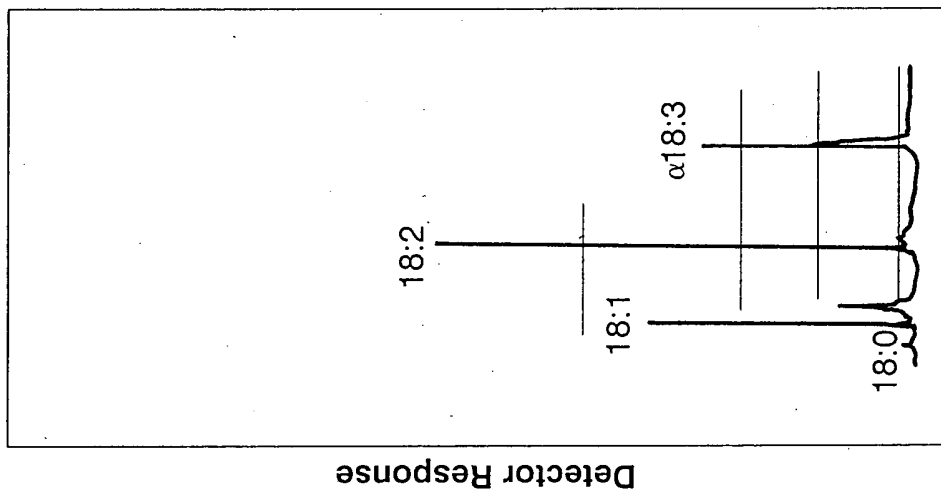
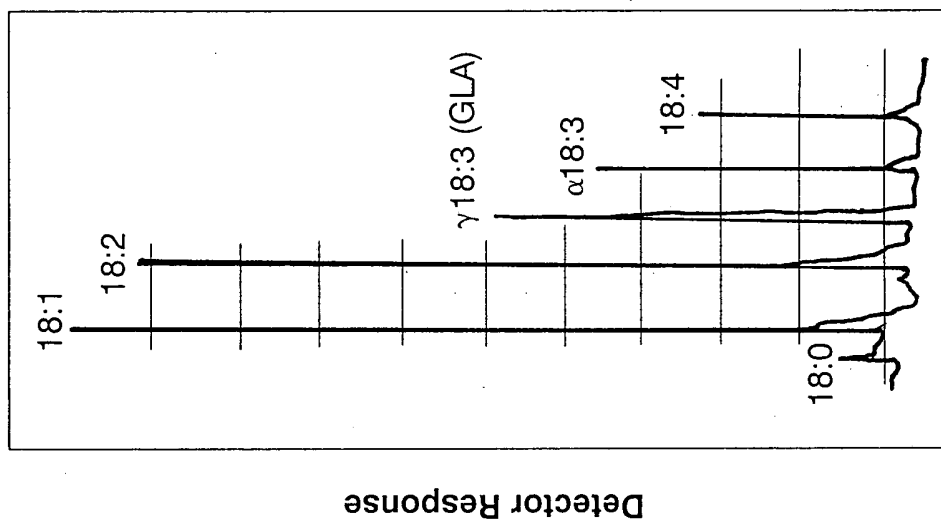
**FIGURE 1A****FIGURE 1B**

100955-12101



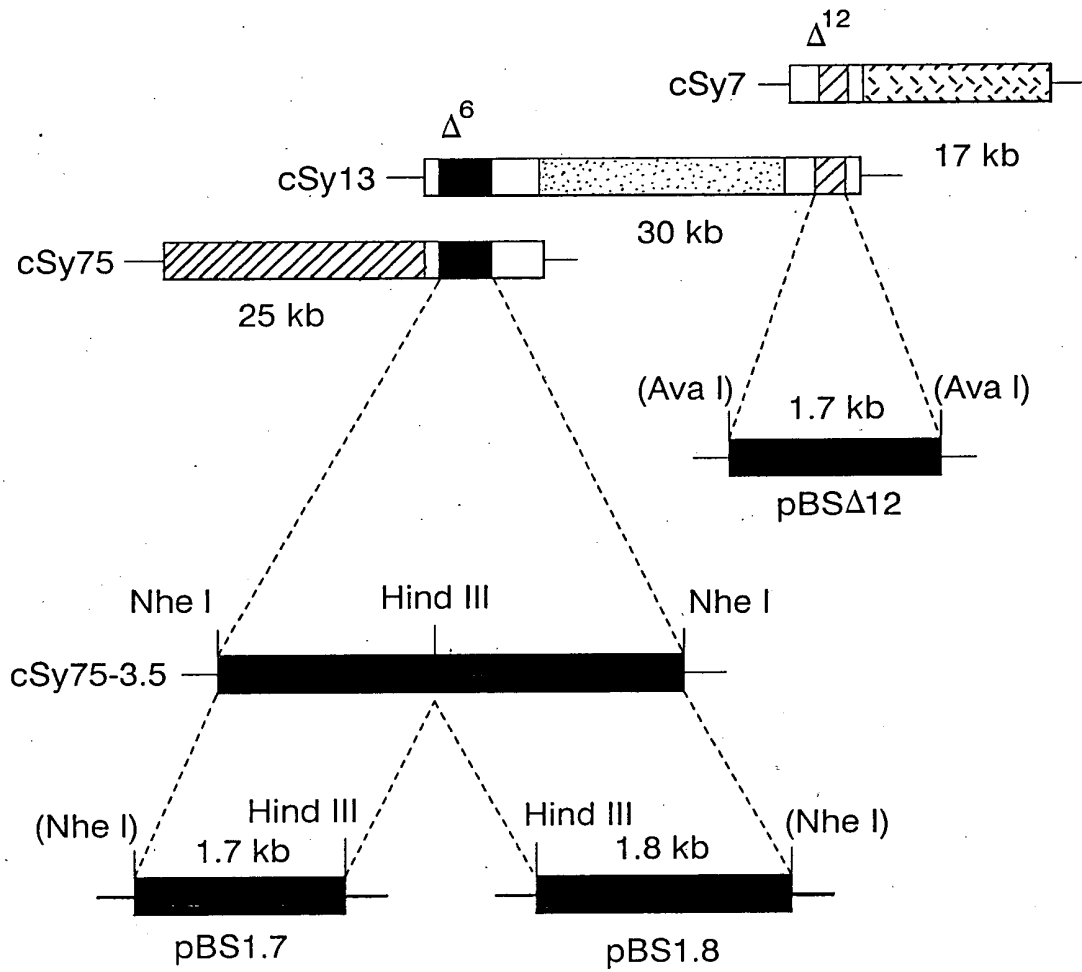
Retention Time

FIGURE 2A



Retention Time

FIGURE 2B

**FIGURE 3**

10069756 95262001

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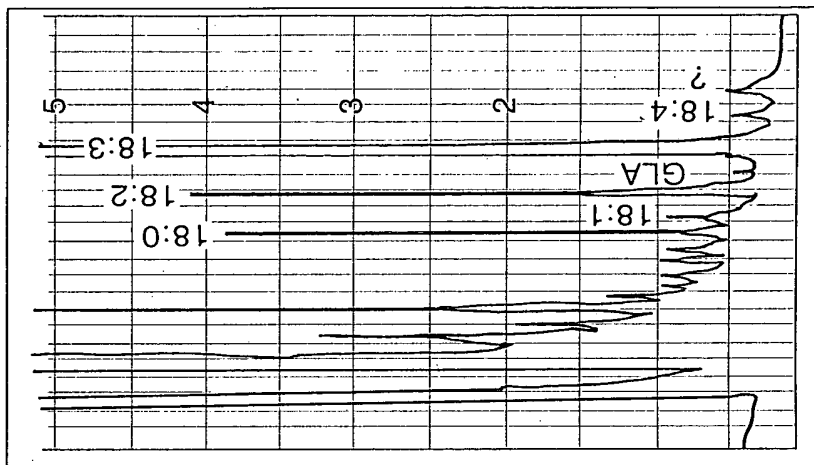


FIGURE 4B

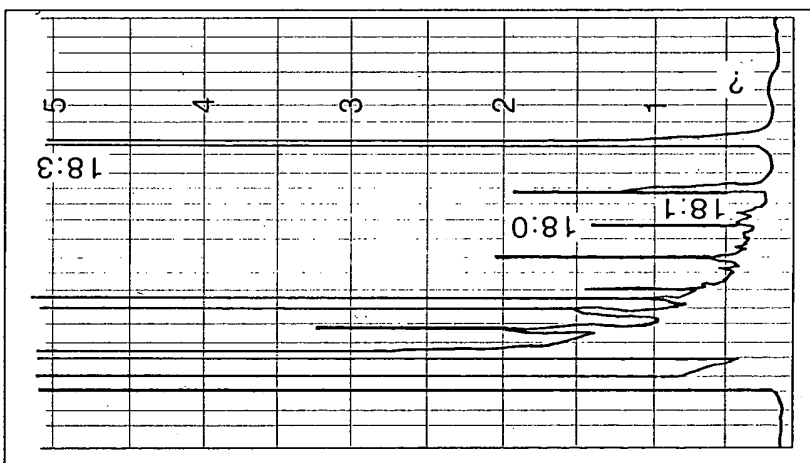


FIGURE 4A

Total: 954620F

A - - - - - A

```

1  aatatctgcc taccctccca aagagagtag tcatTTTTtca tcaatggctg
81  aactcaagaa ccacgataaa cccggagatc tatggatctc gatccaaggg
161 gaccatccag gtggcagctt tcccttgaag agtcttgctg gtcaagaggt
241 ctctacatgg aagaatcttg ataagtTTTT cactgggtat tatcttaag
321 ataggaaagct tgtgtttgag TTTTctaaaa tgggtttgta tgacaaaaaa
401 atagcaatgc tgtttgctat gagtgtttat ggggttttgt tttgtgagg
481 gatgggggtt ctttggaatc agagtgggtg gatlgacat gatctgggc
561 ataatgttat ggttatTTTT gctgcaaat gtctttcagg aataagtatt
641 cacattgcct gtaatagcct tgaatatgac cctgatttac aatataacc
721 ttcaactcacc tctcatTTct atgagaaaaa gttgactttt gactctttat
801 cattttaccc tattatgtgt gctgctaggc tcaatatgta tgaacaatct
881 tcctatcgag ctcaggaaact ctgggatgc ctagtgtctt cgatttggtg
961 gggtgaaaga attatgtttg ttattgcaag tttatcagtg actggaatgc
1041 ctccaagtgt ttatgttggg aagcctaaaag ggaataattg gtttgagaaa
1121 cctccttggg tggattgggt tcatggtgga ttgcaattcc aaattgagca
1201 ccttaggaaa atctcgccct acgtgatcga gttatgcaag aaacataatt
1281 ccaatgaaat gacactcaga acattgagga acacagcatt gcaggctagg
1361 giatgggaag ctcttcacac tcatggttaa aattaccctt agttcatgta
1441 gtgtcttgtc ttggttctac ttgttggagt cattgaaact tgtctttat
1521 gaggttttgc ttcatctccc attattgatg aataaggagt tgcataattg
1601 gaatgtactt tgtaccactg tgtttcagt tgaagctcat gtgtacttct
1681 tattt

```

FIGURE 5A(1)

FIGURE 5A(2)

104221" 9546200T

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A - - - - - A

1	MAAQIKKYIT	SDELKNHDKP	GDLWISIQGK	AYDVSDWVKD	HPGGSFPLKS
81	LKDYSVSEVS	KDYRKLVFEF	SKMGLYDKKG	HI MFATLCFI	AMLFAMSVYG
161	AGHYMVVSDS	RLNKFMGIFA	ANCLSGISIG	WWKWNHNAHH	IACNSLEYDP
241	SLSRFFVSYQ	HWTFFYPIMCA	ARLNMYVQSL	IMLLTKRNV	YRAQELLGCL
321	GMQOVQFSLN	HFSSSVYVGK	PKGNNWFQKQ	TDGTLDISCP	PWMDWFHGG
401	HNL PYN YASF	SKANEMTLRT	LRNTALQARD	ITKPLPKNLV	WEALHTHG

FIGURE 5B(1)

total 956200

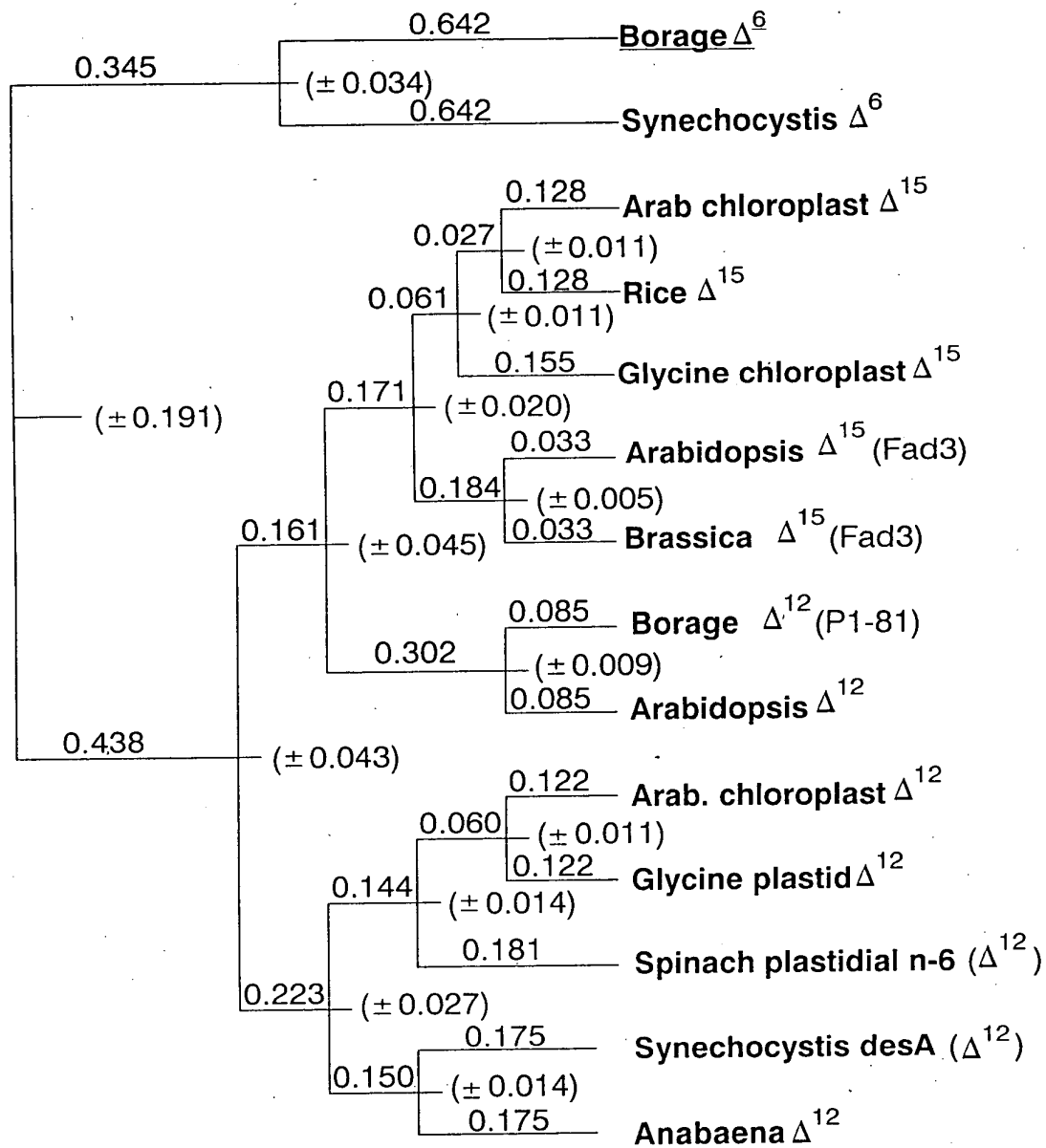
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A | | | | | A

LAGQEVTD	AF	VA	HP	AS	TK	NL	DK	FF	TG	YY	80	
VLFCEGV	L	V	H	LF	SG	CL	MG	FL	WI	QSG	WI	160
DLOYP	P	FL	V	SS	FF	GS	LS	TS	HF	YE	KRL	240
VFSI	WY	PL	L	V	S	C	L	P	N	W	G	320
QFQI	EH	HL	F	P	K	M	P	R	C	N	L	400
												448

FIGURE 5B(2)

10029755.122101

**FIGURE 6**

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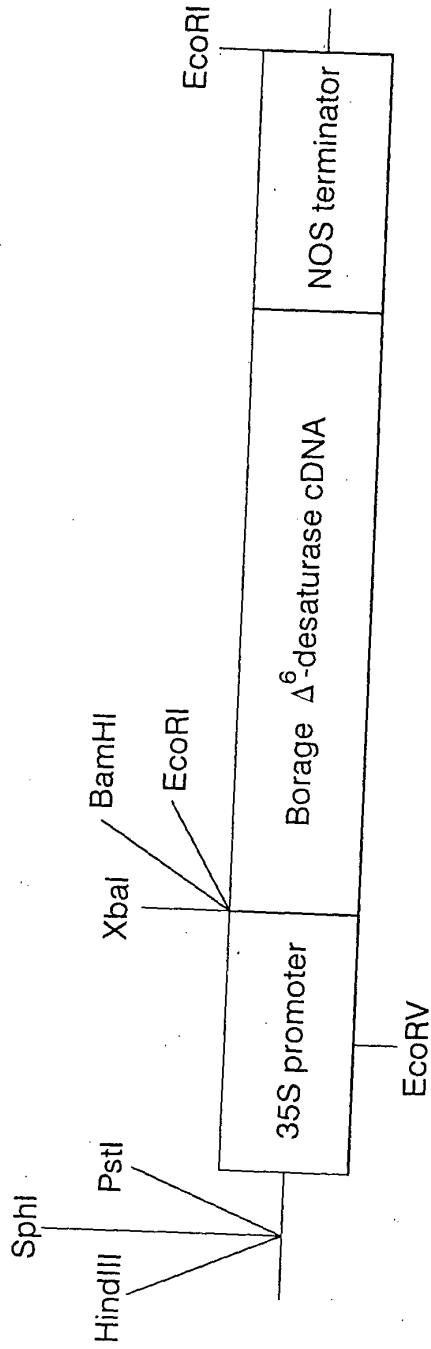


FIGURE 7

10029756-122104

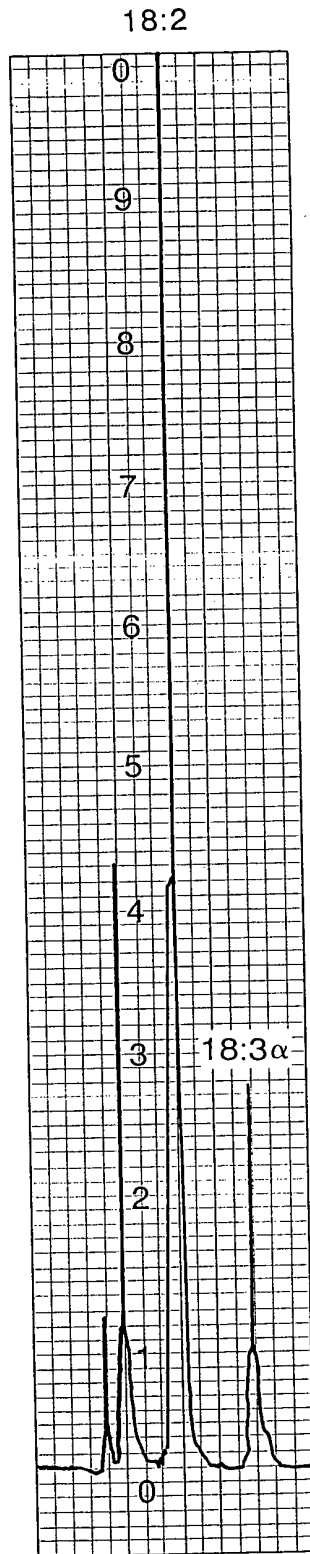


FIGURE 8A

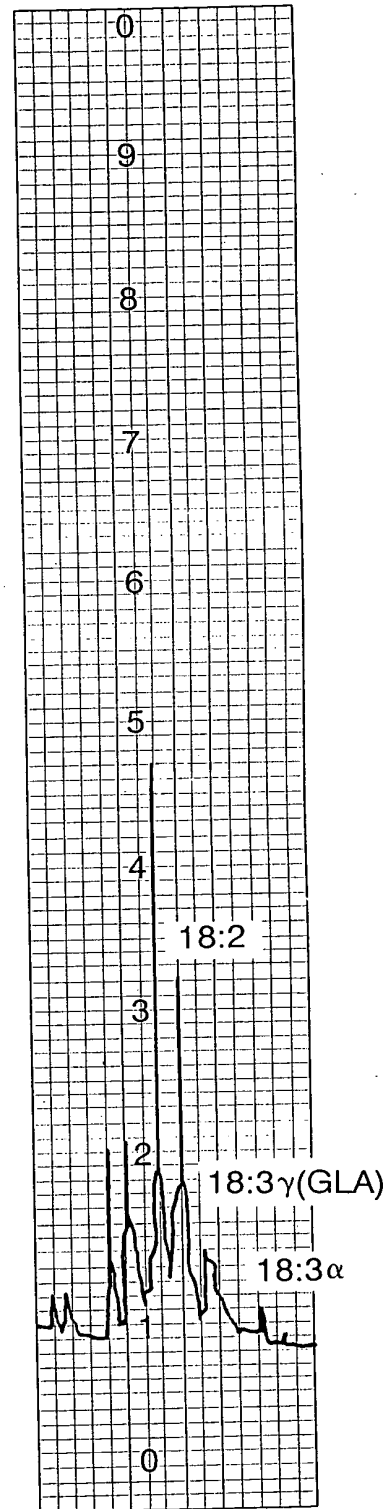


FIGURE 8B

10029756.122101

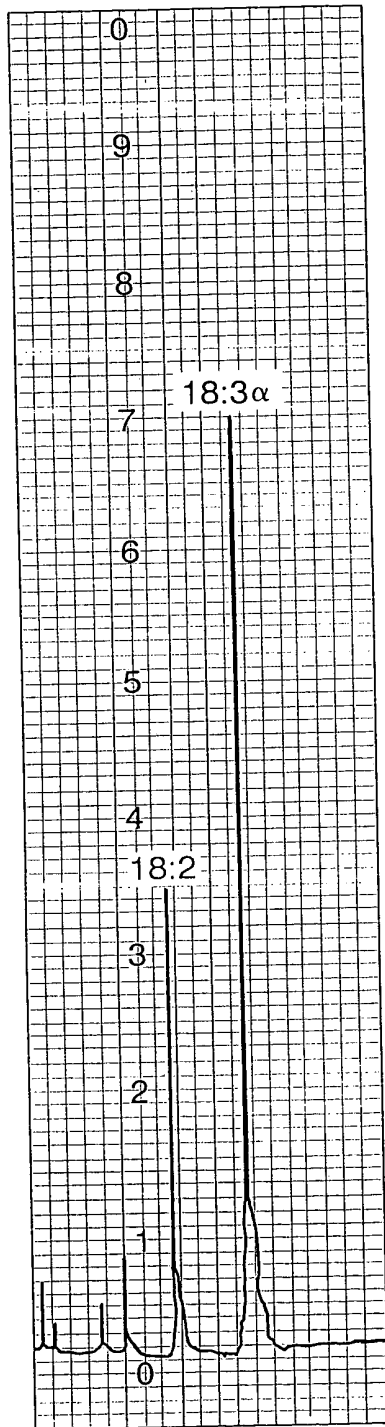


FIGURE 9A

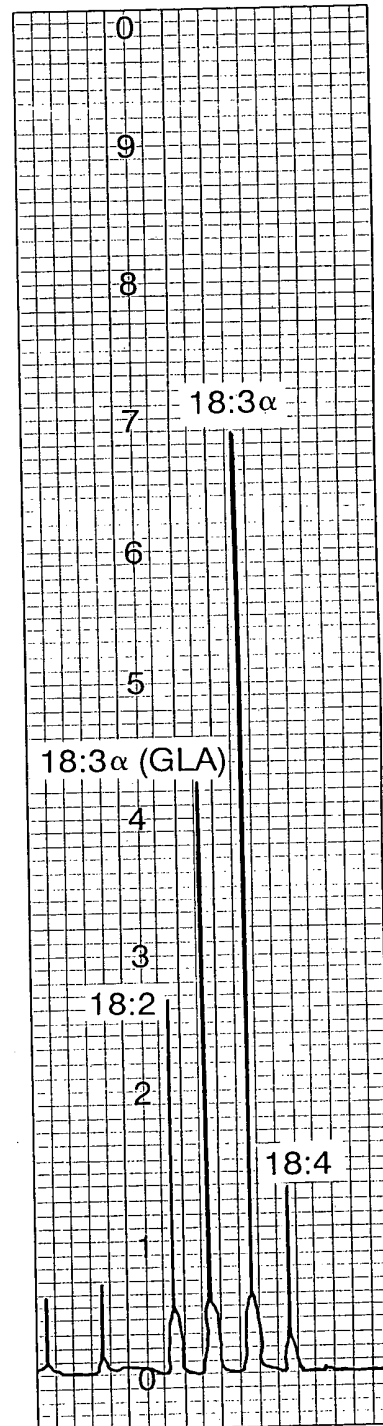


FIGURE 9B

TOT22T" 9546200T

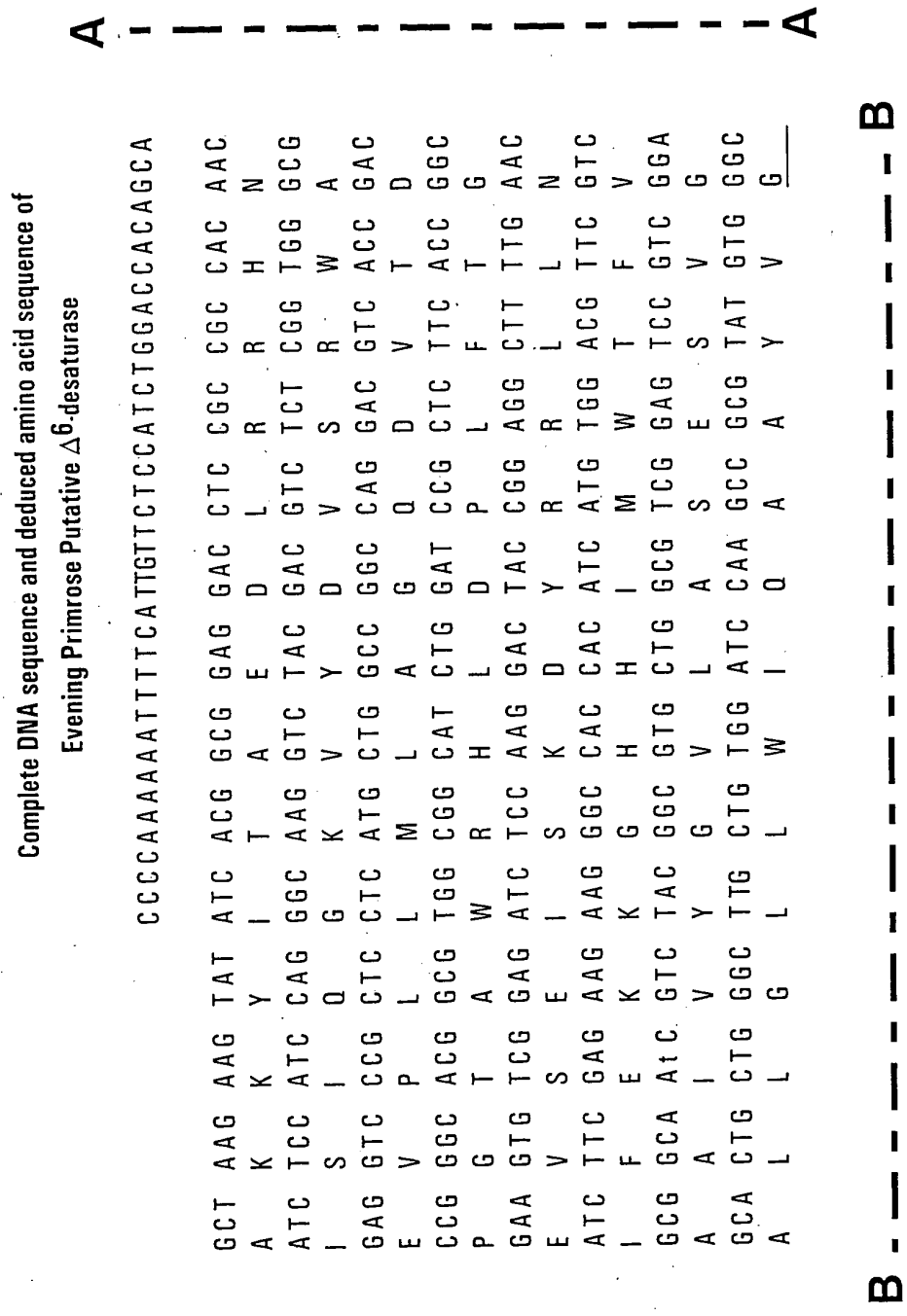


FIGURE 10A

100295262001

A	-----											
	TCC	CAC	ACA	ATG	GAG	GGC	GAA					
				M	E	G	E					
	AAG	TCC	GGC	GAT	CTC	TGG						
	K	S	G	D	L	W						
	GGC	GAG	CAC	CCC	GGC	GGC						
	A	E	H	P	G	G						
	GCC	TTC	ATT	GGC	TAC	CAC						
	A	F	I	A	Y	H						
	TAC	TAC	CTC	AAG	GAC	TTC						
	Y	Y	L	K	D	F						
	GAG	ATG	TCG	CGG	TCC	GGG						
	E	M	S	R	S	G						
	GGC	GTT	GGC	GTC	ATG	ATG						
	G	V	A	V	M	M						
	GTT	CAC	ATG	CTC	TGC	GGC						
	V	H	M	L	C	G						
	CAT	GAC	TCC	GGC	CAT	TAC						
	H	D	S	G	H	Y						

C-----C												

FIGURE 10B

101221" 9526200F

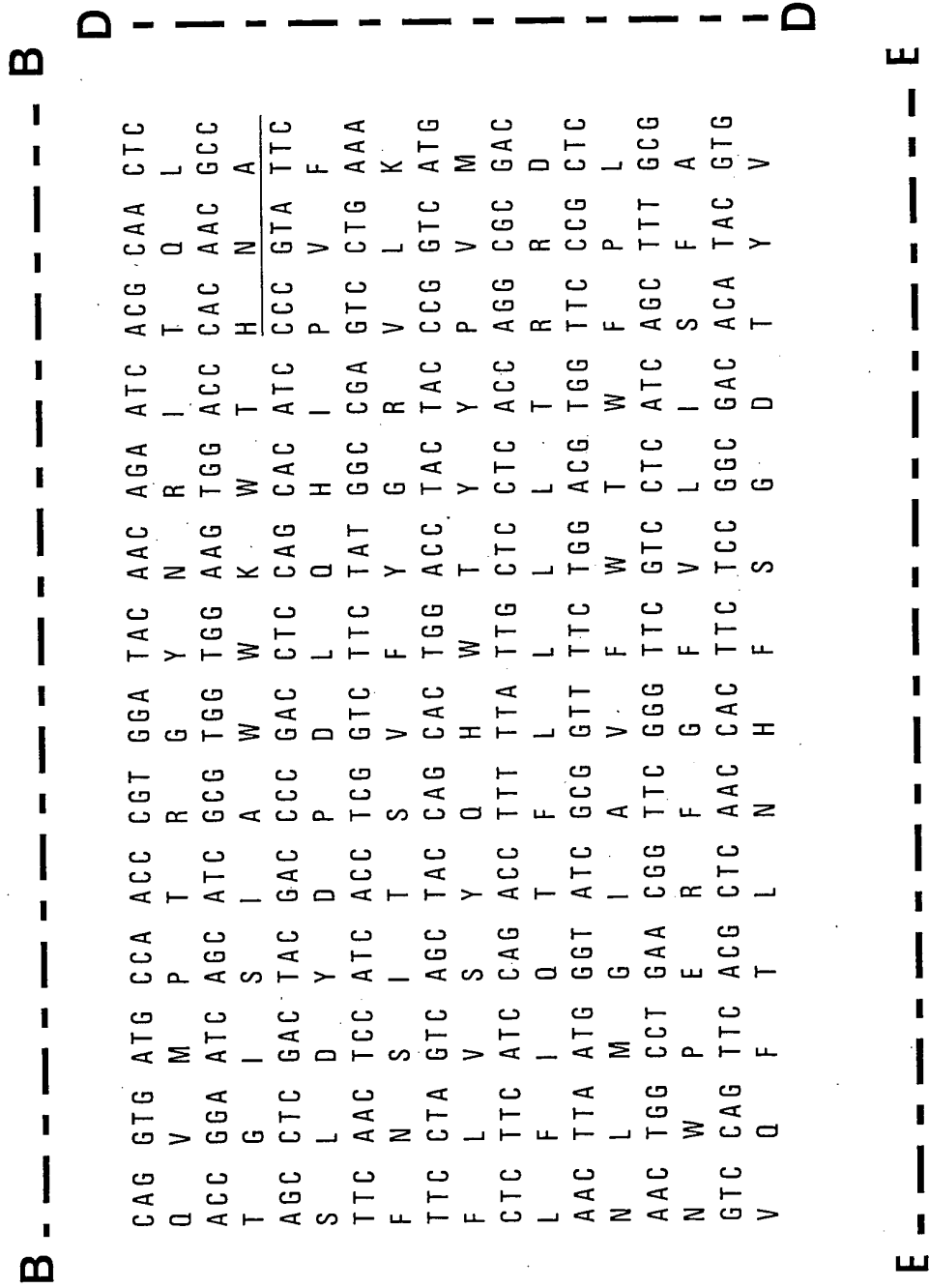


FIGURE 10C

total 934200

C	---	C
D		D
ATA	GCA	GGC AAC ATC CTA
I	A	G N I L
CAC	CAC	CTC GCC TGC AAC
H	<u>H</u>	L A C N
GCC	GTC	TCC ACC CGA CTC
A	V	S T R L
TTC	GAC	GAA GTG GCA CGG
F	D	E V A R
ATC	TTC	GGC CGA GTC AAC
I	F	G R V N
GTC	CCT	GAC CGC GCT CTA
V	P	D R A L
TTC	GTA	TCT TGT CTC CCG
F	V	S C L P
GTC	ACG	GCG ATC CAG CAC
V	T	A I Q H
GGC	CCC	CCC AAG GGC GAC
G	P	P K G D
C	---	C
F	---	F

FIGURE 10D

total 9546200T

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E - - - - - E - - - - - G - - - - - G

AAC TGG TTC GAG AAG CAG ACG AAA GGG ACG ATC GAT ATC ACG
N W F E K Q T K G T I D I T
TGG TTC TTT GGT GGG CTG CAG TTC CAG TTG GAG CAC CAC TTG
W F F G G L Q F O L E H L
GGG CAG CTT AGG AAG ATT GCG CCC TTG GCT CCG GAC TTG TGT
G Q L R K I A P L A R D L C
TAT AGG AGC TTC GGG TTT TGG GAC GCT AAT GTC AGG ACA ATT
Y R S F G F W D A N V R T I
GCG GTT CAG GCG CGT GAC CTT AAT TCG GCC CCG TGC CCT AAG
A V Q A R D L N S A P C P K
GCT TAT AAC ACC CAT GGT TGA TTG TGG TTT TGT GTT GTG GGT
A Y N T H G *
TTGATTTATGTCACAAATATTGAACCTGAATAACCATGGAAGGCACCTACGTTACGCT
CCCTTGTTGGGGGCAAGTGCAGTATTTATTTCTTATCCCATGTACTTTTGTATT
TAATTTATTATTGATTAAATTTTGTGTAGTTGGGTGCTATAGCAAGTTTATAAT
AAAAAAAAAA

FIGURE 10E

EP vs Bo Delta 6-desaturase Formatted Alignment

EPD6prot	M	G E A	K K Y I T	A E D	R R H N K S	G D L W I	S I O G K	V Y D V S	R M A V A	E	H P G G E	V P L	L M	50
BoD6prot	M	A A Q I	K K Y I T	S D E L	K N H D K P	G D L W I	S I O G K	A Y D V S D	M W K D		H P G G S	F L K S	50	
Consensus	M	K K Y I T	L	L	H K	G D L W I	S I O G K	X D V S	W		H P G G	P L	50	
EPD6prot	L	A G O D	V T D A F	H A Y T P	G T A W R	H L D P L	F I G Y Y	L K D F E	V S E L S	K D Y R R	L L N E	M	100	
BoD6prot	L	A G O E	V T D A F	V A F H P	A S T M K	N L D K F	F I G Y Y	L K D Y S	V S E V S	K D Y R R	L V F E F	100		
Consensus	L	A G O	V T D A F	A	H P	W	L D	F I G Y Y	L K D	V S E	S	K D Y R R	100	
EPD6prot	S	R S G I	F E K K G	H I	M W T	F V G V	A V M M A	I	V Y G	V L A S	E S V G	V H M L O G A	L L G L	150
BoD6prot	S	K M G L	Y D K K G	H I	M F A	D L C F I	A M L F A	M S	V Y G	V L F C E	G V L V H	L F S G C E	M G F L	150
Consensus	S	G	K K G	H	T	T	A	A	V Y G	V L	E	V	V H	150
EPD6prot	W	I Q A A Y	V G H D	S G H Y	O V M P T R	G Y N R I	T Q L I	A	G N I	E H G I	S I A	W W K W	H N A H H	200
BoD6prot	W	I Q S G W	G H D	A G H Y	M V S D S	R I N K F	M G I F A	A N C	S G I	S I G	W W K W	H N A H H	200	
Consensus	W	I Q	G H D	G H Y	V	N	.	.	A	N	L	G I S I	H N A H H	200

FIGURE 11A

A-----A

TOT22T" 95Z6200T

A-----A

EPD6prot	L	A	C	N	S	L	C	Y	D	P	D	L	O	H	I	P	V	F	A	V	S	T	R	I	F	N	S	I	T	S	V	F	Y	G	R	V	L	R	F	D	E	V	A	R	E	I	V	S	Y	Q	250
BoD6prot	I	A	C	N	S	L	E	Y	D	P	D	L	O	V	I	P	F	L	V	S	S	K	F	F	G	S	L	I	T	S	H	F	Y	E	K	R	L	I	F	D	S	L	S	R	F	F	V	S	Y	Q	250
Consensus	.	A	C	N	S	L	.	Y	D	P	D	L	O	.	I	P	.	V	S	.	S	K	F	.	F	G	S	L	.	T	S	.	F	Y	.	L	.	E	D	.	R	F	.	V	S	Y	Q	250			

EPD6prot	H	W	T	M	Y	P	V	M	I	F	G	R	V	N	L	E	I	Q	T	F	L	L	L	T	R	R	G	M	P	D	R	A	L	N	L	M	G	I	A	V	F	W	T	W	P	L	F	V	300
BoD6prot	H	W	T	R	Y	P	I	M	C	A	A	R	L	N	M	V	Q	S	L	I	M	L	E	T	R	R	N	V	S	Y	R	A	Q	E	L	G	C	L	V	F	S	I	W	P	L	I	V	300	
Consensus	H	W	T	.	Y	P	.	M	.	.	G	R	V	N	.	Q	L	L	L	T	R	R	.	V	.	D	R	A	.	L	.	G	.	V	F	.	W	P	L	.	V	300			

EPD6prot	S	C	L	P	N	M	P	E	R	F	G	F	V	L	I	S	F	A	V	T	A	I	Q	R	V	O	F	I	L	N	H	F	S	G	D	T	Y	V	G	P	P	K	G	N	W	F	E	K	Q	350
BoD6prot	S	C	L	P	N	M	G	E	R	I	M	E	V	I	A	S	L	S	V	T	G	M	O	V	O	F	S	E	N	H	F	S	S	S	V	Y	V	G	K	P	K	G	N	W	F	E	K	Q	350	
Consensus	S	C	L	P	N	M	.	E	R	.	.	G	F	V	.	S	.	V	T	.	.	Q	.	V	O	F	.	L	N	H	F	S	.	.	Y	V	G	.	P	K	G	N	W	F	E	K	Q	350		

EPD6prot	T	K	G	T	I	D	I	T	I	C	P	P	W	M	D	W	E	F	G	G	L	Q	F	Q	L	E	H	I	L	F	P	R	I	P	R	G	Q	L	R	K	I	A	P	L	A	R	D	L	E	C	K	400
BoD6prot	T	D	G	T	I	D	I	S	C	P	P	W	M	D	W	E	H	G	G	L	Q	F	Q	I	K	H	H	I	L	F	P	K	M	P	R	C	N	L	R	K	I	S	P	Y	V	I	E	L	C	K	400	
Consensus	T	.	G	T	.	D	I	.	C	P	P	W	M	D	W	E	.	G	G	L	Q	F	Q	.	.	K	H	H	I	L	F	P	.	P	R	.	L	R	K	L	E	C	K	400	

B-----B

FIGURE 11B

TP022T 9546200T

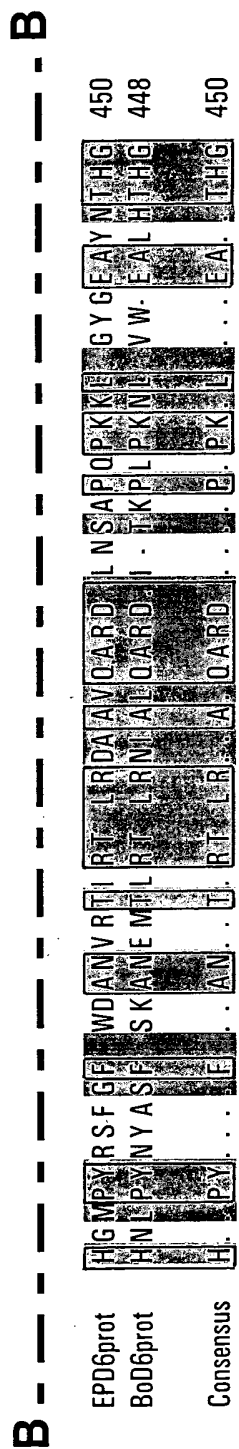
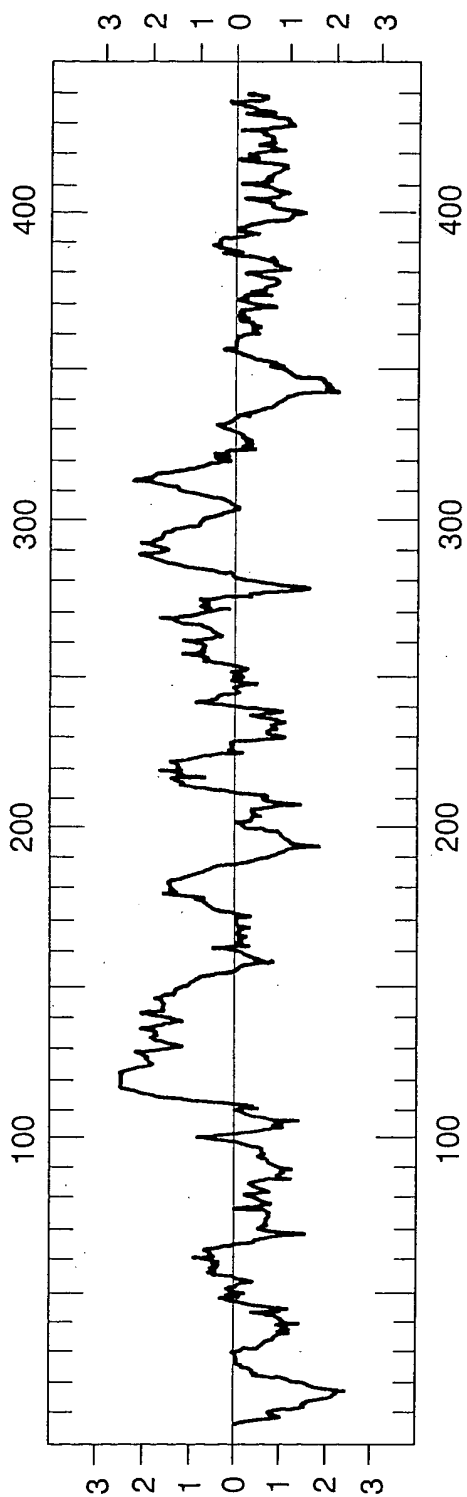


FIGURE 11C

FOF22T" 9546200T

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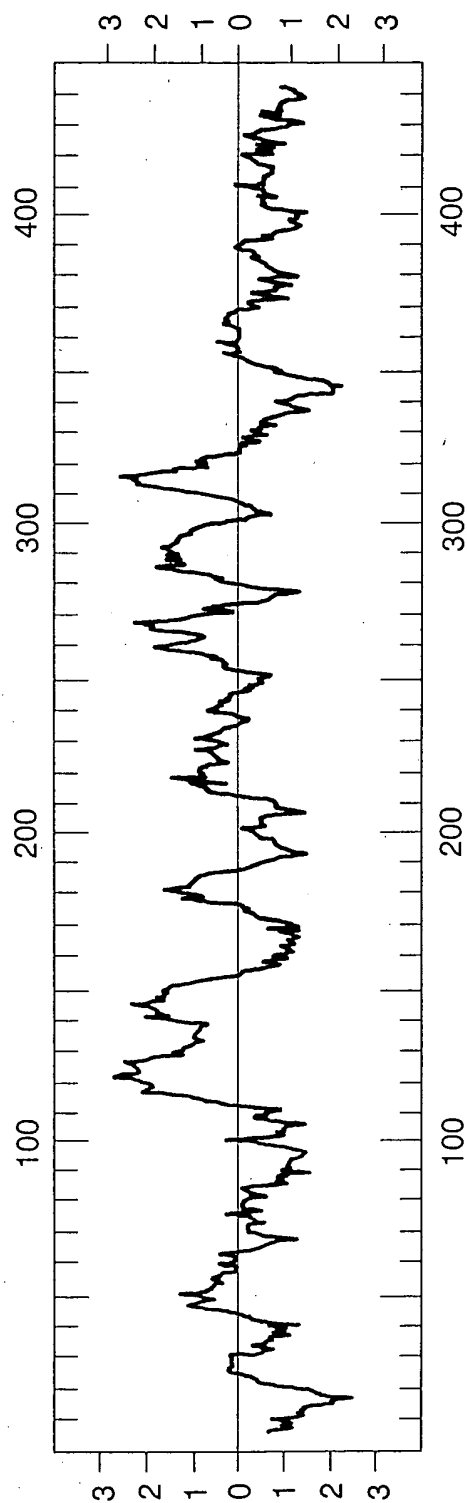


Borage Δ^6 -Desaturase KYTE-Doolittle Hydrophobicity Plot

FIGURE 12A

TOTAL 952600F

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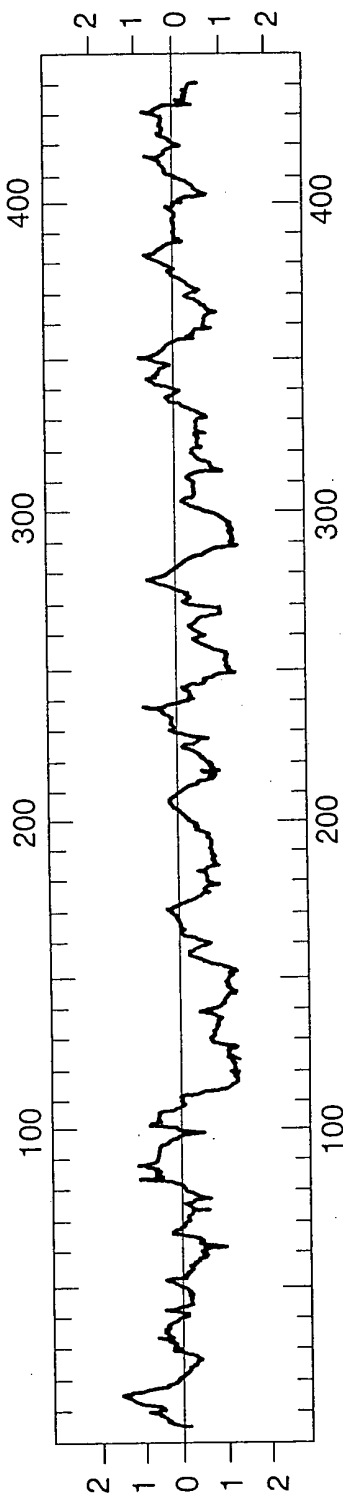


Evening Primrose Putative Δ^6 -Desaturase Kyte-Doolittle Hydrophobicity Plot

FIGURE 12B

TOPSET 9546200F

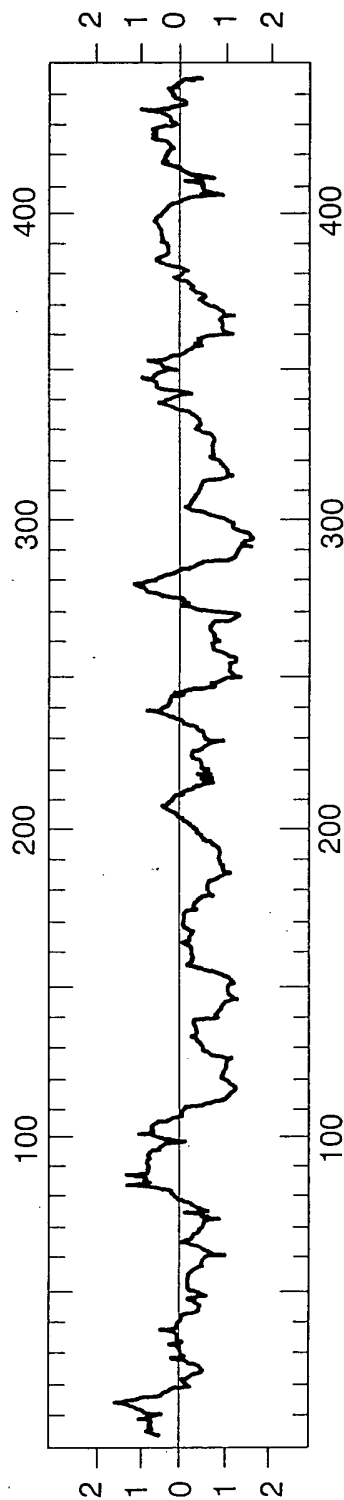
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Borage Δ^6 -Desaturase Hopwood Hydrophilicity Plot

FIGURE 13A

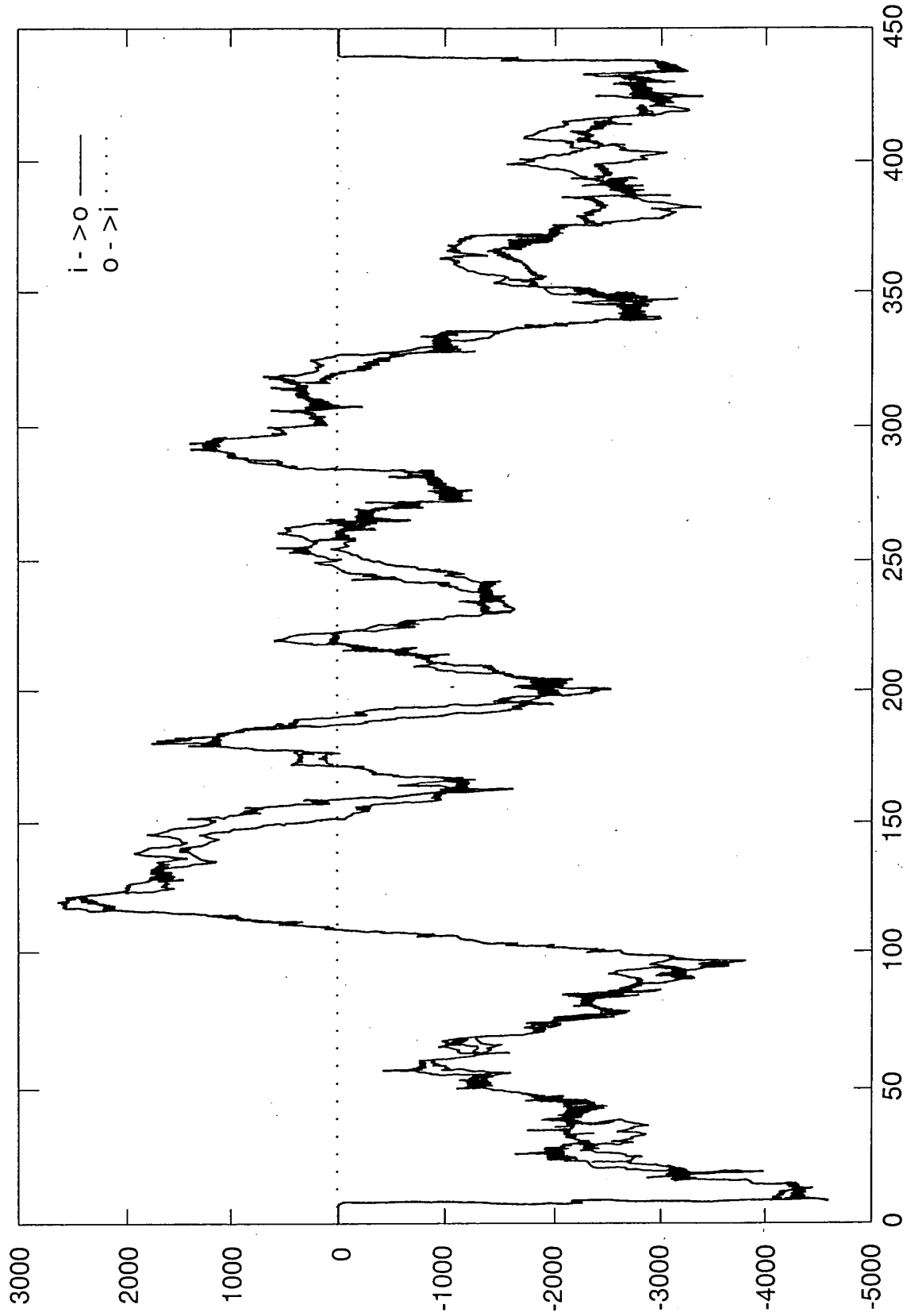
total 952600F



Evening Primrose Putative Δ^6 -Desaturase Hopwood Hydrophilicity Plot

FIGURE 13B

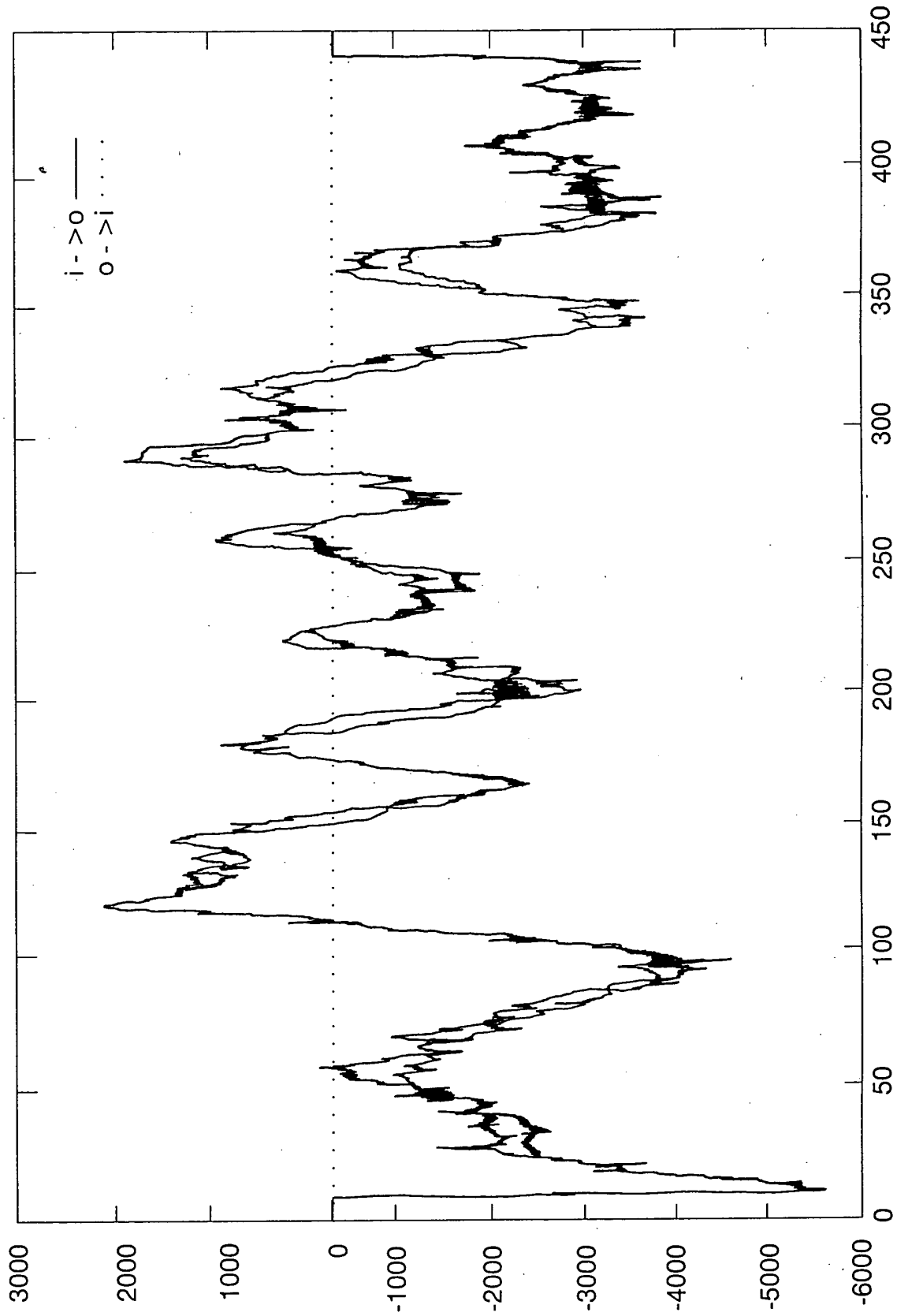
TOTAL 9546200



TMpred Output for Borage Delta 6-Desaturase

FIGURE 14A

TOT22T 9546200T



TMpred Output for Evening Primrose Seq

FIGURE 14B